

***LineUp With Math™* Alignment**
Indiana's Academic Standards - Mathematics

Standard 7. Problem Solving

Students make decisions about how to approach problems and communicate their ideas.

Indicator	<i>LineUp With Math™</i> Activities
5.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
5.7.2 Decide when and how to break a problem into simpler parts.	--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.

Students use strategies, skills, and concepts in finding and communicating solutions to problems.

Indicator	<i>LineUp With Math™</i> Activities
5.7.3 Apply strategies and results from simpler problems to solve more complex problems.	--Explore and apply a variety of strategies to optimize the solution of air traffic control conflicts.
5.7.4 Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
5.7.7 Make precise calculations and check the validity of the results in the context of the problem.	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.

Students determine when a solution is complete and reasonable and move beyond a particular problem by generalizing to other situations.

Indicator	<i>LineUp With Math™</i> Activities
5.7.8 Decide whether a solution is reasonable in the context of the original situation.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
5.7.9 Note the method of finding the solution and show a conceptual understanding of the method by solving similar problems.	--Explore and apply a variety of strategies to optimize the solution of air traffic control conflicts.